

## **REMARKS**

Claims 1 through 17 are pending in this Application. Claims 1, 4, 6 and 17 have been amended. Care has been exercised to avoid the introduction of new matter. Indeed adequate descriptive support for the present Amendment should be apparent throughout the original filed disclosure as, for example, page 2 of the written description specification, lines 14 through 21, the paragraph bridging pages 5 and 6 thereof, and page 6, lines 5 through 14. Applicants submit that the present Amendment does not generate any new matter issue.

### **Claim Objections**

The Examiner objected to claim 17 noting an apparent typographical oversight which is addressed and remedied by the present Amendment, thereby overcoming the stated basis for the objection. Accordingly, withdrawal of the objection to claim 17 is solicited.

### **Claims 4 and 6 were rejected under the second paragraph for 35 U.S.C. §112.**

In the statement of the rejection the Examiner identified a basis in claims 4 and 6 asserted to render the claimed inventions indefinite. This rejection is traversed.

In response claims 4 and 6 have been amended to address the issues raised by the Examiner, thereby overcoming the stated bases for the imposed rejection. Applicants submit that one having ordinary skill in the art would have clearly understood the scope of the claimed invention particularly when reasonably interpreted in light of and consistent with the written description of the specification, which is the judicial standard. *Miles Laboratories, Inc. v. Shandon, Inc.*, 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993).

Applicants, therefore, submit that the imposed rejection of claims 4 and 6 under the second paragraph with a 35 U.S.C. §112 is not viable and, hence, solicit withdrawal thereof.

**Claims 1, 2, and 4 through 10 were rejected under 35 U.S.C. §102 for lack of novelty as evidenced by EP 835,684 (EP ‘684).**

In the statement of the rejection the Examiner asserted that EP ‘684 discloses a particulate trap corresponding to that claimed, referring to Fig. 1, column 1 lines 15 through 17, column 2 lines 14 through 43 and column 4, lines 5 through 16. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. §102 requires the identical disclosure in a single reference of each element of a claimed invention, such that that identically claimed invention is placed into the recognized possession of one having ordinary skill in the art.

*Dayco Prods., Inc. v. Total Containment, Inc.* 329 F.3d 1358 (Fed. Cir. 2003); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002).

In imposing a rejection under 35 U.S.C. §102 the Examiner is required to specifically identify wherein an applied reference is perceived to identically disclose each feature of a claimed invention. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). That burden has not been discharged. Indeed, there are significant differences between the claimed particulate trap and that disclosed by EP ‘684 that scotch the factual determination that EP ‘684 discloses a particulate trap identically corresponding to that claimed.

It is significant that the Examiner is unable to identify one section of EP ‘684 that mentions average pore diameter. Thus, as far as EP ‘684 is concerned, the use of conventional structures is sufficient (column 4, lines 11 and 12). In short, the average pore diameter is not even a recognized result effect variable which begs optimization according to EP ‘684. *In re Rijckaert, supra*; *In re Yates*, 663 F.2d 1054, 211 USPQ 1149 (CCPA 1981); *In re Antonie*, 559

*F.2d 618, 195 USPQ 6 (CCPA 1977).* On the other hand, in accordance with the present invention, the porous metallic bodies are purposely structured to exhibit a larger porosity such that even when the temperature of the exhaust gas rises in a short time effective oxidation of NO occurs and trapped PM burned because the temperature of the catalytic converter can be raised easily. In this respect the Examiner's attention is invited to page 4 of the written description of the specification, line 9 though Page 5, line 9.

It is not apparent and the Office Action does **not** specifically identify wherein EP '684 discloses or even suggests a catalytic converter comprising metallic bodies having an average pore diameter of not less than of 500  $\mu$  m and not more than 2,000  $\mu$  m. In an abundance of caution, a telephonic interview was conducted with Examiner Tran on March 22, during which Examiner Tran was requested to identify wherein EP '684 specifically disclosed the use of metallic porous bodies in a particulate trap having an average pore diameter as recited in claim 1. Examiner Tran replied that the average pore diameter was calculated from the disclosed cell density, e.g., 400 cells/in<sup>2</sup>.

As EP '684 does not specifically disclose any particulate trap having porous metallic bodies with an average pore diameter not less than 500  $\mu$  m and not more than 2,000  $\mu$  m, the Examiner's rejection must, perforce, be predicated upon the doctrine of inherency. However, in order to invoke the doctrine of inherency, the Examiner must provide a factual basis upon which the predicate the determination that the allegedly inherent feature **necessarily**, repeat **necessarily**, flows from the teachings of the applied prior art. *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002); *Finnegan Corp. v. ITC*, 180 F.3d 1354, 51 USPQ2d 1001 (Fed. Cir. 1999); *In re Robertson*, 169 F.3d 743, 49 USPQ2d 1949 (Fed. Cir. 1999); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d

1048, 32 USPQ2d 1017 (Fed. Cir. 1994); *In re Rijckaert, supra*; *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 20 USPQ2d 1746 (Fed. Cir. 1991); *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); *In re Oelrich*, 666 F.2d 578, 212 USPQ 323 (CCPA 1981). No such factual basis has been presented.

To whatever extent the Examiner is relying upon calculations, the Examiner is requested to provide specific calculations **and a supporting factual basis** to establish that the particulate trap disclosed by EP '684 comprises porous metallic bodies **necessarily** has an average pore diameter not less than 500  $\mu$  m and not more than 2,000  $\mu$  m. Absent any such calculations **and supporting objective evidence**, the imposed rejection is without the requisite basis.

Moreover, claim 1 has been amended to clarify that the catalytic converter is formed of one or more metallic porous bodies which have a three dimensional network. It should be apparent from the disclosure that monolithic honeycombs are of a different basic structure than the three dimensional porous metallic networks employed in the claimed invention. In this respect, the Examiner's attention is invited to the discussion of porous metallic bodies (three dimensional network structures) set forth at page 2 of the written description specification, line 6 et seq. vis-a'-vis monolithic honeycombs set forth at page 3 of the written description of the specification, lines 4 et seq. Based upon the foregoing, it should be apparent that one having ordinary skill in the art would have recognized the difference between the porous metallic bodies of the claimed invention having a three dimensional network vis-à-vis the honeycomb monolithic structures of EP '684.

Applicants separately argue the patentability of claim 2. The Examiner did not provide any factual basis upon which to predicate the determination that the particulate trap disclosed by EP '684 **necessarily** comprises porous bodies having an average pore diameter as recited in

claim 1, much less any **factual basis** upon which to predicate the conclusion that porous bodies having same porous diameter would **necessarily** exhibit the same porosity. In fact, Applicants submit that the mere coincidence of average pore diameters, a fact which has yet to be established on this record, necessarily translates to coincident porosities. This is because the claimed invention is directed to metallic porous bodies having a three dimensional network vis à vis the monolithic honeycombs of EP '684.

Specifically, the porosity of a monolith structure is determined by **cell density and wall thickness**. For example, and advertizing to EP '684, as in column 2, lines 22 through 31, in the case of a 1 mm-square plane whose cell density is 600 cells/inch<sup>2</sup>, the values of porosity are as follows:

Wall thickness	Porosity		
0.2 mm	64%	←	$(1.0-0.2)^2/1.0^2 \times 100$
0.5 mm	25%	←	$(1.0-0.5)^2/1.0^2 \times 100$

Based upon the foregoing it should be apparent that, and one having ordinary skill in the art would have so understood, the porosity of a monolith structure as disclosed by EP '684 can be varied by wall thickness. However, the porosity of the claimed metallic porous bodies having a three dimensional network do not necessarily have the same value as the porosity of the monolithic structure even if the cell diameters are the same, which is the Examiner's apparent basis for the inherency determination. In short, it is clear, and would have been understood by one having ordinary skill in the art, that **if** porous bodies have the same cell diameters, and that is a big **if** which, again, has not yet been established on this record, they do not **necessarily** have the same porosity. And again, **necessity** is the touchstone of **inherency**. *Crown Operations International Ltd. v. Solutia Inc., supra; Finnegan Corp. v. ITC, supra; In re Robertson, supra;*

*Electro Medical Systems S.A. v. Cooper Life Sciences, Inc., supra; In re Rijckaert, supra;*

*Continental Can Co. USA, Inc. v. Monsanto Co., supra; W. L. Gore & Associates, Inc. v.*

*Garlock, Inc., supra; In re Oelrich, supra.*

The above argued differences between the claimed invention and the trap disclosed by EP '684 undermines the factual determination that EP '684 discloses a particular trap identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicants, therefore, submit that the imposed rejection of claims 1, 2 and 4 through 10 under 35 U.S.C. §103 for obviousness predicated upon EP '684 is not factually viable and, hence, solicit withdrawal thereof.

**Claims 3 and 11 through 15 were rejected under 35 U.S.C. §103 for obviousness predicated upon EP '684 in view of EP 900,922 (EP '922).**

**Claim 16 was rejected under 35 U.S.C. §103 for obviousness predicated upon EP '684 in view of Ban.**

**Claim 17 was rejected under 35 U.S.C. §103 for obviousness predicated upon EP '684 in view of Hardy.**

Each of the above rejections under 35 U.S.C. §103 is traversed. Specifically, claims 3 and 11 through 17 depend from independent claim 1. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 1 under 35 U.S.C. §102 for lack of novelty as evidenced by EP '684. None of the secondary references to EP '922, Ban and Hardy cures the argued deficiencies of EP '684.

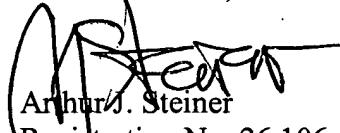
Applicants, therefore, submit that the imposed rejection of claims 3 and 11 through 15 under 35 U.S.C. §103 for obviousness predicated upon EP '684 in view of EP '922, imposed rejection of claim 16 under 35 U.S.C. §103 for obviousness predicated upon EP '684, in view of Ban and the imposed rejection of claim 17 under 35 U.S.C. §103 for obviousness predicated upon EP '684 in view of Hardy are not factually or legally viable and, hence, solicit withdrawal thereof.

It should, therefore, be apparent that the imposed objection and rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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